

CLAIMS

What is claimed is:

1. 1. A roadway crash cushion comprising:
a collapsible, substantially self-restoring collapsing portion comprising a pair of substantially parallel panels formed substantially of a thermoplastic material.
2. 2. The roadway crash cushion of claim 1 further comprising at least one cambered portion in each of said panels.
3. 3. The roadway crash cushion of claim 1 wherein the thermoplastic material comprises polyethylene.
4. 4. The roadway crash cushion of claim 1 further comprising at least one substantially rectangular supporting frame that is secured to each of the panels.
5. 5. The roadway crash cushion of claim 4 further comprising a longitudinal, ground-mounted rail member and wherein the supporting frame engages the rail member for longitudinal movement along the rail member.
6. 6. The roadway crash cushion of claim 1 wherein each of the panels has a cambered portion that provides a point of flexure for the panel.

7. The roadway crash cushion of claim 1 further comprising a nose piece.
8. A roadway crash cushion comprising:
 - a collapsible cushion portion having a cambered panel member that collapsibly folds during a collision and, due to shape memory, will substantially return to an unfolded condition following a collision.
9. The roadway crash cushion of claim 8 wherein further comprising:
 - a ground-mounted longitudinal basetrack;
 - a plurality of substantially rigid diaphragms that are affixed to the panel member, the diaphragms each engaging the basetrack for slidable movement thereupon.
10. The roadway crash cushion of claim 9 wherein the basetrack comprises a pair of parallel rail members.
11. The roadway crash cushion of claim 10 wherein each diaphragm comprises an enlarged rectangular upper portion to which the panel members are secured.
12. The roadway crash cushion of claim 10 wherein each diaphragm comprises a lower portion having a pair of shoes for slidingly engaging the rail members.

13. The roadway crash cushion of claim 9 further comprising a tension cable affixed to at least one diaphragm to prestress the panel members in a bending relation at their cambered portions.

14. The roadway crash cushion of claim 9 further comprising a nose piece formed of a sheet of plastic bent substantially into a "U" shape.

15. A roadway crash cushion comprising:

- a longitudinal, ground-mounted basetrack that comprises a pair of parallel rail members;
- a pair of planar panel members that are positioned parallel to one another and in a substantially vertical orientation, the panel members each having a cambered portion that promotes plastic bending of the panel member along the cambered portion;
- a plurality of diaphragms for securing the panel members to each other and to the basetrack, the diaphragms each comprising a pair of shoes for sliding engagement of the diaphragm to the basetrack rail members; and
- a tension cable affixed to at least one diaphragm to prestress the panel members in a bending relation at their cambered portions.

16. The roadway crash cushion of claim 15 further wherein the panel members and diaphragms are secured to one another to form a linear array of closed crushable cells.

17. The roadway crash cushion of claim 16 wherein the cells are hexagonally shaped.

18. The roadway crash cushion of claim 16 wherein the cells have different sizes to provide for separate collapsible zones within the array of cells.
19. The roadway crash cushion of claim 18 wherein the array of cells has a pair of primary collapsible zones located at upstream and downstream ends of the array.
20. The roadway crash cushion of claim 19 wherein the array of cells has a secondary collapsible zone located between the primary collapsible zones.